A NEW COPROPHILOUS ASCOMYCETE FROM INDIA

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In the course of a study of coprophilous fungi collected in the Zoological Garden in Delhi, an ascomycete belonging to the genus *Achaetomium* was isolated. It differs from previously described species by larger ascospores and almost colourless ascomata with a wide apical opening.

Achaetomium thielavioides v. Arx, Mukerji & Singh, *spec. nov.*—Fig. 1.

Coloniae in agaro farina maydis confecto 25°C in dies 2–3 mm crescunt, hyalinae, saepe lanosae; hyphae vegetativae 3–6 μm latae. Ascomatum initialia convoluta, cito plectenchymatica, hyalina. Ascomata hyalina vel modice brunnescentia, uniformia vel lageniformia, 150–240 μm diametro, ostiolo apicali 60–80 μm lato perforata; paries 7–10 μm crassus, carnosus, textura epidermoidea, hyalinus vel dilute brunneus. Asci fasciculati, clavati, pedicellati, 8-spori, evanescentes, 50–78 × 18–35 μm; ascosporae late fusiformes, biapiculatae, crassitunicatae, leves, viridibrunneae, poro germinationis subapicali distincto praeditae, 21–27 × 13–16 μm. Paraphyses filiformes, 2–3 μm latae, cito evanescentes. Anamorphosis abest.

Typus: CBS 122.78, isolatus e fimo antilopae Nilgai dictae, lectus in horto zoologico Delhiensi in India, 1976.

Colonies on cornmeal agar at 25°C with a daily growth rate of 2–3 mm, colourless, often lanose due to aerial hyphae; hyphae hyaline, branched, regularly septate, thin-walled, 3–6 μm broad; initials coiled, soon becoming plectenchymatous, hyaline; ascomata colourless or turning light brown with age, urn- or flask-shaped, 150–240 μm in diameter, with a 60–80 μm wide apical opening; ascoma wall 7–10 μm thick, fleshy, of textura epidermoidea, hyaline or light brown, composed of thin-walled, 3–5 μm broad hyphal cells which are vertically arranged around the apical opening; asci fasciculate, clavate, stalked, 8-spored, evanescent, 50–78 × 18–35 μm; ascospores broadly fusiform, biapiculate, thick-walled, smooth, greenish brown, with a distinct, usually sub-apiculate germ pore, 21–27 × 13–16 μm, adhering to form a dark, slimy ball when liberating; paraphyses filiform, hyaline, 2–3 μm broad, disappearing early; anamorphs absent.

TYPE.—CBS 122.78, isolated from nilgai dung, collected in Delhi Zoo, India, 29 Dec. 1976.

This fungus can be distinguished from all species described as *Achaetomium* (Mukerji & Saxena, *1974*; Kulshreshtha *& al., 1977*) by its larger ascospores with a subapical germ pore and by the usually colourless wall of the ascomata. Occasionally the ascomata are non-ostiolate in which case the fungus is similar to *Thielavia hyalocarpa* v. Arx (*1975*), except in

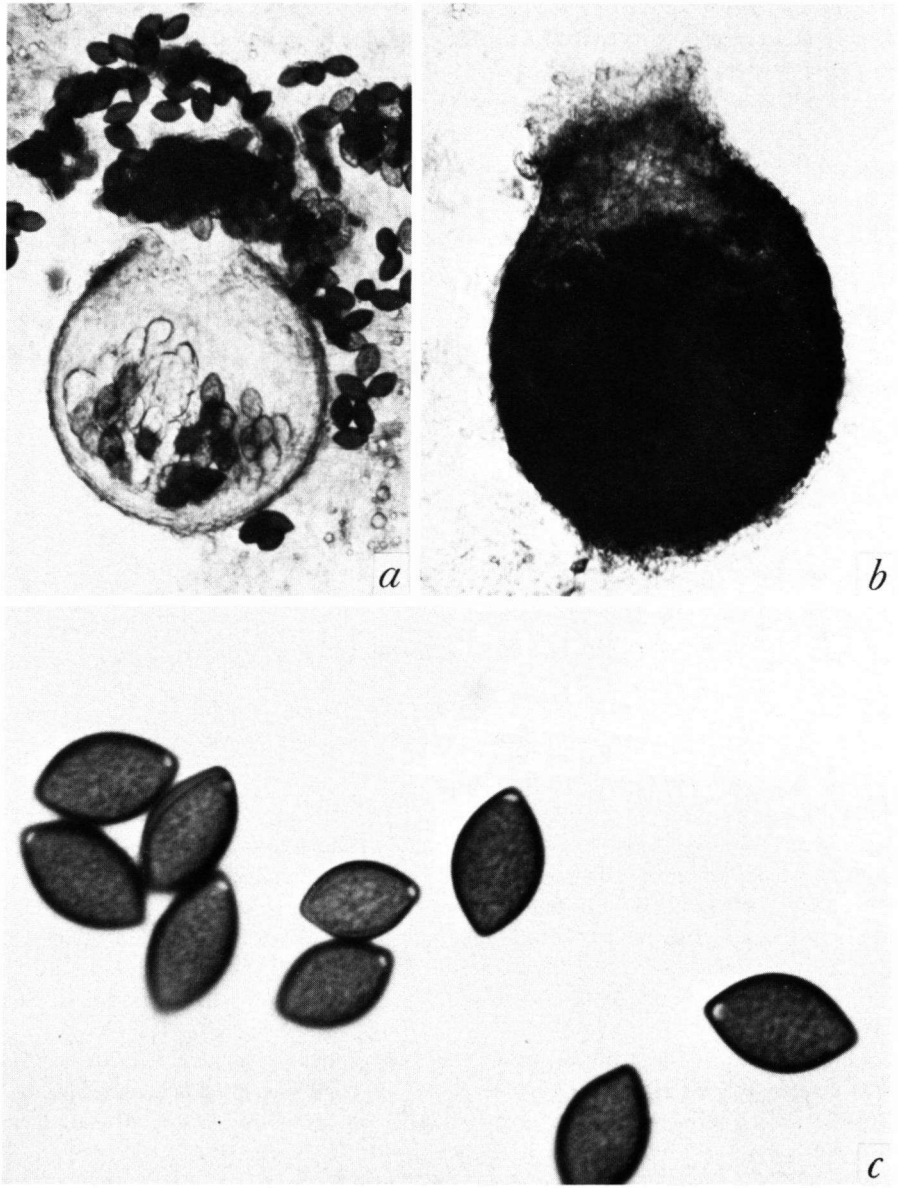

Fig. 1. *Achaetomium thielavioides*. — a, b. Ascomata (× 180). — c. Ascospores (× 750).

that the ascospores have an apical germ pore. In *A. thielavioides* the germ pore is usually subapical, but also occasionally lateral or nearly lateral (Fig. 1c).

Some additional *Thielavia* species can be considered as non-ostiolate counterparts of

Achaetomium species. *A. globosum* Rai & Tewari, the type species of the genus, is close to *T. octospora* (Natarajan) v. Arx and *T. tetrasperma* (Lodhi & Mirza) v. Arx (*Boothiella tetraspora* Lodhi & Mirza). These species are characterized by light ascomata, cylindrical asci and spherical-oblate or broadly ovate ascospores (von Arx, *1975*).

The genus *Achaetomium*, therefore, can be considered to be the ostiolate counterpart of *Thielavia*. Both these genera are seen to be related to the Sordariaceae and Chaetomiaceae; their position being intermediate.

References

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